

**REMARKS**

Applicants' attorney and the D. Allard , an inventor, thank Examiner C. Nguyen for the courtesy of a telephone interview conducted April 21, 2003. The claims and the cited references were discussed and arguments were made indicating how the cited references failed to disclose or suggest the present invention. Examiner Nguyen indicated that the arguments would be presented to Primary Examiner Marc Thompson for consideration and determination as to the patentability of the claims. Applicants' attorney on April 28, 2003 conducted a telephone interview with Primary Examiner Marc Thompson . Claim amendments further limiting the claimed invention with respect to the cited art were discussed. Also, the merging of Claims 1 and 4 and Claims 13 and 14 would advance the prosecution of the case. Accordingly, Applicants' attorney agreed to file an RCE

Claims 1-20 are in the case and have been rejected under 35 USC 103(a) as unpatentable over Beser 6,212,563, of record, and Sistanizadeh 6,101,182, of record and in further view of USP 6,490,620 to C. M. Ditmer et al., issued December 3, 2002, filed September 24, 1998 (Ditmer). Claims 4 and 14 have been canceled and merged into Claims 1 and 13, respectively to advance the prosecution of the case.

Before responding to the rejection, applicants would like to distinguish Ditmer from the present invention (Allard) and further comment on the failure of Beser and Sistanizadeh, alone or in combination, to disclose Allard, as follows:

1.     Ditmer discloses a web-based client-server application that enables clients to access information relating to the performance of their telecommunications broadband networks. The system comprises a client browser application located at a workstation for enabling web-

based communications with the reporting system. A secure server manages client sessions over the Internet. A dispatcher server enables forwarding of a report request message by a client and an associated report response message back to the client. The dispatcher server is associated with a variety of applications, specific proxies, having associated Intranet application servers. The broadband server provides reports on virtual data network alarms and performance. The relevant proxy waits for a request from an application client and services the request either by handling them internally or forwarding them to associated Intranet application servers. The proxies additionally receive appropriate responses back from an Internet application. Any data returned from the Internet application server is translated back to the client format and returned over the Internet to the client workstation via the dispatcher server. (Col. 8 lines 26-44.)

Specifically, the broadband proxy application forwards user requests and responses to and from a broadband server process where messages sent to the client broadband server by the client include a generic message header followed by proxy's specific data. In the other direction, the same process is employed, i.e., the broadband proxy sends the generic header followed by the proxy's specific responses back to the dispatcher server for communication over the firewall and back to a web server. (Col. 12 lines 55-65.) Figure 6 discloses a broadband view web server, which performs various database queries, and function calls in response to requests received from the customer. Ditmer fails to disclose elements of Allard, as follows:

A. Ditmer discloses a broadband client submits all requests and queries to a broadband server using a proxy framework called "Broadband Proxy Server." The broadband server performs the various database queries and function calls in response to the requests received from the customer via the broadband proxy. Essentially, the broadband proxy isolates the client from the back-end system. In contrast, Allard discloses a broadband proxy server for

extending services that would otherwise be provided by a local DHCP server. Ditmer fails to disclose a broadband server receiving and routing extended DHCP requests to a selected ISP for providing all service to the customer after updating routing tables in the router. (Page 11, lines 17-Page 12, line 5).

B. Ditmer discloses a broadband proxy server serving as an interface between a client and a broadband server, which performs various database queries and functions in response to requests received from the customer. In contrast, Allard discloses a broadband proxy server directing customer requests for and responses from all IP services directly to the selected ISP or any requested internet service, based on routing tables. (Page 11, lines 10-14.) Ditmer fails to disclose directing all customer requests for IP services directly to the selected ISP, or other Internet service.

2. Beser discloses a client identifier generated for each network device as a function of an IP address. The DHCP server indexes the network device configuration parameters according to the client identifier and returns the same IP address each time the DHCP is queried. Beser uses the client identifier for permanently setting an IP address. The DHCP database always returns the designated IP address regardless of whether any leased time has expired which is contrary to Dynamic Host Configuration specified in the DHCP standard (RFC 2131). In contrast, Allard discloses a proxy function for the DHCP server that redirects requests to an ISP for dynamic allocation of addresses. Beser prevents a client from selecting among various ISP's due to the permanent assignment to an ISP.

3. Sistanizadeh discloses a user may obtain a different Internet service provider by providing a different user name and password. The application on the PC does a DHCP release which releases the former address, triggers a DNSUPDATE and commences a new process of

DHCP requests. The DHCP request identifies a new ISP without rebooting the PC. (Col. 13, lines 12-27.) In contrast, Allard discloses the cable customers registering with multiple ISP's of their choice. Each ISP sends a customer an ID, password, logon script, and updates its database and the database of the broadband server with the customer information. The broadband server authorizes the customer modem and router for access to the ISP designated by an ID and a password. Sistanizadeh fails to disclose simultaneously registering with multiple ISP's or accessing other ISPs without changing passwords or IDs.

Summarizing, Beser and Sistanizadeh in view of Ditmer disclose a broadband server responsive to a DHCP message for IP service from a single IP server based on a client identifier which requires canceling of an ISP address when a new ISP is sought by a client. The cited references fail to disclose a customer registering with one or more ISPs before services and acquiring a customer ID and password in a broadband server database and generating a DHCP message including an extended portion identifying the selected ISP from among those with which the customer has registered, whereby all IP services are provided directly to the customer based on updated routing tables and without involvement of the server. In effect, the ISP serves as a substitute server for the broadband server in processing customer requests.. Moreover, the combination of Beser and Sistanizadeh discloses different modes for maintaining IP addresses. Beser applies a fixed IP address, whereas Sistanizadeh maintains multiple passwords, ID's and IP addresses and their combination would be inoperative. Finally, Ditmer discloses a broadband client submits all requests and queries to a broadband server using a proxy framework and DHCP protocol and does not supply the missing elements in Beser and Sistanizadeh relating to a proxy server processing user requests for ISP service without executing the standard DHCP protocol. A worker skilled in the art would have no teaching of a broadband server receiving and

routing extended DHCP requests to selected ISP's after updating routing tables in a router connected to the broadband server. The rejection of claims 1-20 is without support in the cited references and the rejection under 35 USC 103(a) fails. Withdrawal of the rejection of claims 1-20, allowance of the claims and passage to issue of the case are requested.

Now turning to the rejection, applicant responds to the indicated paragraphs of the Office Action, as follows:

**REGARDING PARAGRAPH 1:**

Applicant notes the entry of Amendment A received on November 18, 2002.

**REGARDING PARAGRAPHS 2, 3 & 4:**

Claims 1-20 include elements not shown or suggested in Beser and Sistanizadeh in view Ditmer, as follows:

A. Claim 1:

(i) "...at least one customer coupled to the network via a broadband multi service proxy server (BMPS) including a database and a router ;"

The Examiner acknowledges that Beser does not disclose element (i). Sistanizadeh discloses a user obtaining IP services from another provider by providing a different user name and password. Sistanizadeh does not disclose pre-registration of the user with the provider or receiving an ID and password from the provider without providing a different user name and password. Beser and Sistanizadeh fail to disclose element "i".

(ii) "...means responsive to the ISP registration for storing in the database a customer identification, ID and password generated by the ISP;"

Sistanizadeh discloses the DHCP server engages in the initial exchange with the customer to obtain a MAC address, customer name and password for access to an ISP. In contrast, Allard discloses the customer registers with the ISP, which provides a user ID, password and logon script. The ISP sends the broadband server a database message, which updates a server database. After checking the customer ID and password against the server's database, the customer is authorized to access the ISP. Sistanizadeh discloses the customer registering directly with the broadband server, whereas the customer registers with the ISP which interacts with the broadband server to register the customer. Moreover, the customer in Sistanizadeh provides the ID and password, whereas the ISP provides the customer ID and password in Allard.

(iii) "...means for generating a DHCP message including an extended portion identifying a selected ISP in a customer request for all IP services with the selected internet service provider (ISP);"

Beser discloses a DHCP message in Figure 6B. The Beser message corresponds to Fig. 3a of Allard. The Beser message does not include the extended portion shown in Figure 3b of Allard which enables the customer to directly access the ISP, or any other standard internet service. Beser fails to disclose a DHCP message with an extended portion.

(iv) "means for mapping a unique customer address to the DHCP request;"

Applicants can find no disclosure in the cited art where the broadband server maps a unique customer address to the DHCP request

(v) “means for receiving and routing the customer request and extended DHCP requests to the selected ISP for providing all IP services to the customer after updating routing tables in the router by the ISP;”

Beser discloses allocating IP addresses for network devices using the DHCP wherein the DHCP server returns the requested IP address every time the IP address is requested. In contrast, Allard discloses the ISP updates the routing tables for the broadband server, which enables the customer to go directly to the ISP, or any other standard Internet service. (Page 12, lines 14-19.) Beser fails to disclose an ISP updating the routing tables connected to the broadband server.

(vi) “...Means for directing future customer requests for and responses from all IP services directly to the selected ISP or selected internet service based on the updated routing tables.”

Beser discloses the standard DHCP protocol is used each time in processing a customer request. (Col. 13, lines 20-27 and Figure 6a.) In contrast, Allard discloses a customer having selected and pre-registered with an ISP; updated the routing tables for the broadband server and after transmitting a DHCP message including an extended portion the customer is directed to the ISP, bypassing standard Internet DHCP protocol. (Page 12, lines 14-21.)

(vii) “...means for directing future customer requests for and responses from all IP services directly to the selected ISP or selected internet service based on the updated routing tables.”

Beser discloses assigning a client identifier to each customer and incorporating the client identifier in the DHCP message to permanently set an IP address for the customer.

(Col. 13, lines 20-23). In contrast, Allard discloses an extended DHCP message which directs customer requests to ISP's according to the ISP address in the extended portion of the DHCP message, after the selected ISP has updated the routing tables for the router coupled to the broadband server. Beser fails to disclose directing customer requests to different ISP's according to the DHCP message and bypassing standard Internet DHCP protocol.

Summarizing, Beser and Sistanizadeh alone, or in combination, fail to disclose a customer pre-registering with one or more ISP's instead of a DHCP and the ISP updating the DHCP routing tables to enable a customer sending a DHCP message with an extended portion, directly to the ISP, thereby avoiding standard Internet DHCP protocol.

#### **REGARDING PARAGRAPHS 5/6/7/8:**

Claims 2, 3 and 5 further limit Claim 1 and are patentable on the same basis thereof.

#### **REGARDING PARAGRAPH 9:**

Claims 6 and 13 include elements not disclosed or suggested in Beser-Sistanizadeh-Ditmer, as follows:

(i) "...means for generating a customer request including an extended DHCP message for access to the IP network, the extended DHCP message including an identification of a selected ISP for all ISP services;"

Beser shows a standard DHCP message in Figure 6a. Sistanizadeh discloses a standard DHCP message in Figure 8a. Ditmer discloses a telecommunications network data management reporting and presentation service for customers and not a customer a messaging system for Internet services. All the cited references fail to disclose a standard DHCP message header portion including additional fields to enable a customer to deal directly with an ISP of choice after pre-registration with the selected ISP and updating of the DHCP routing tables by the ISP.

(ii) "...means for directing future requests for and responses from IP services directly to the selected ISP or selected internet service after updating routing tables in the router."

Applicant has demonstrated in the consideration of Claim 1 that the corresponding element is not disclosed in Sistanizadeh. Beser, Sistanizadeh and Ditmer do not disclose a standard DHCP message with an extended portion enabling a customer to direct DHCP requests directly to an ISP of choice bypassing the standard DHCP protocol.

#### **REGARDING PARAGRAPH 10:**

Claim 7 further limits Claim 6 and is patentable on the same basis thereof.

#### **REGARDING PARAGRAPH 11:**

Claim 8 includes elements not disclosed or suggested in Beser, Sistanizadeh or Ditmer, as follows:

(i) "...means for sending the server a customer ID and password for customer's registered by the ISP."

Sistanizadeh discloses in Col. 8, lines 8-22, that the ISP provide the DHCP with lists identifying their customers. There is no disclosure in Sistanizadeh that the ISP provides a customer ID and password enabling the DHCP server to determine if the customer is valid. Beser-Sistandizadeh-Ditmer all fail to disclose a selected ISP sending the DHCP server a customer ID and password.

#### **REGARDING PARAGRAPH 12:**

Claim 9 includes elements not disclosed or suggested in Beser-Sistanizadeh-Ditmer, as follows:

(i) "...means for sending a DHCP and/or a unique customer address in a customer request for access to the ISP network;"

Beser at Column 3, lines 7-49, discloses a client identifier generator, a part of the cable modem system, for generating a client identifier for a customer. In contrast, Allard discloses the ISP generating a customer ID and password and providing them to the DHCP.

#### **REGARDING PARAGRAPH 13:**

Claim 10 includes elements not disclosed or suggested in Beser-Sistanizadeh-Ditmer, as follows:

(i) "means for sending the server an extended DHCP response and customer assigned address for customer requests validated by the ISP."

Beser at Column 3, lines 27-49; Column 5, line 40 –Column 7, line 23, describes a cable modem system and cable modem protocol, not an ISP sending the server an extended DHCP message after validation by the ISP. Beser-Sistanizadeh-Ditmer fail to disclose the element of Claim 10.

**REGARDING PARAGRAPH 14:**

Claim 11 includes elements not disclosed or suggested in Beser-Sistanizadeh-Ditmer as follows:

(i) "...means emulating the ISP and sending the customer a DHCP response to the customer request."

Beser at Column 2, line 2 – Column 3, line 18, describes a standard DHCP protocol. Applicant can find no disclosure in Beser relating to the DHCP emulating an ISP as a response to a customer request as described in the specification at page 12, lines 14-21. Beser fails to disclose a DHCP server delivering the customer the address of the ISP instead of the DHCP server for accessing the ISP for services.

**REGARDING PARAGRAPH 15:**

Claim 12 includes elements not disclosed in Beser-Sistanizadeh-Ditmer as follows:

(i) "...means for validating a customer request for access to the IP network at the ISP of customer choice."

Sistanizadeh at Column 1, lines 8-15; Column 12, line 47-Column 13, line 27; and Figures 1, 8a and 8b, disclose standard Internet DHCP protocol and fails to disclose the ISP validating a customer request for access to the IP network. Specifically, Sistanizadeh in Column 13, lines 12-27, the DHCP validates the request and not the ISP. In any case, Claim 12 is patentable on the same basis as Claim 6.

**REGARDING PARAGRAPH 16:**

Claim 14 has been canceled without prejudice

**REGARDING PARAGRAPH 17:**

Claim 15 corresponds to Claim 11 and is patentable over Beser-Sistanizadeh-Ditmer for the reasons indicated in connection with the response to Claim 11. In any case, Claim 15 further limits Claim 13 and is patentable on the same basis thereof.

**REGARDING PARAGRAPH 18:**

Claim 16 describes an element not disclosed in Beser-Sistanizadeh-Ditmer, as follows:

- (i) "...checking the extended DHCP message by the ISP to determine if the customer is approved to receive IP services."

Beser at col. 6, line 9 – col. 7, line 23 discloses a cable modem interacting with TRAC and the CMTS using a cable modem protocol stack. Applicants can find no disclosure in Beser relating to the ISP checking the validity of the customer to receive ISP services. Further, Beser-Sistanizadeh-Ditmer all fail to disclose an extended DHCP message as discussed in connection with the response to Claim 1. In any case, Claim 16 further limits Claim 13 and is patentable on the same basis thereof.

**REGARDING PARAGRAPH 19:**

Claim 17 discloses an element not disclosed or suggested in the cited references, as follows:

- (i) "notifying the server when the ISP determines the customer is not approved to receive IP services."

Sistanizadeh at col. 11, lines 18 – 39 discloses a user verifying the authenticity of the DHCP server and determining if it is the correct server for its information. Applicants can find no disclosure of the ISP determining if the customer is approved to receive IP services.

**REGARDING PARAGRAPH 20:**

Claim 18 includes an element not disclosed in the cited art, as follow:

- (i) “The method of Claim 13 further comprising the step of:

sending the server a customer ID and password for customers registered by the ISP.”

Sistanizadeh at col. 10, lines 15 – 40 discloses the DHCP server engaging in an initial exchange with the customer to obtain the customer name and password. Based on the combination of the customer MAC address, Login and Password the server can determine which ISP is sought. In contrast, Allard discloses the ISP sends the DHCP the customer ID and Password. Moreover, the cited art fails to disclose the element of Claim 18 as discussed in connection with the response to Claim 8.

**REGARDING PARAGRAPH 21:**

Claim 19 describes an element not disclosed in the cited art, as follows:

- (i) “The method of Claim 13 further comprising the step of:

sending the server an extended DHCP response and customer assigned address for customer requests validated by the ISP.”

Beser at col. 3, lines 27 – 49; col. 5, line 40 – col. 7 – line 23 discloses standard DHCP protocol for a cable modem interacting with CMTS and TRAC using a cable modem protocol and using a standard DHCP message format.

Sistanizadeh at col. 1, lines 8 –15; col.12, line 47 –col. 13, line 27 and Fig. 1, 8A and 8B disclose a standard DHCP message format for a broadband system report creation process.

Applicants can find no disclosure in the cited art relating to sending a broadband server a customer request validated by an ISP. In any case, Claim 19 corresponds to Claim 10 and is patentable on the same basis thereof.

**REGARDING PARAGRAPH 22:**

Claim 20 further limits Claim 13 from which it depends and is patentable on the same basis thereof.

Summarizing, Claim 1-20 include elements and steps including (i) pre-registering a customer with an ISP which registers the customer with the DHCP server and sends the customer an ID and password; (ii) a DHCP message including an extended portion identifying different ISP's; (iii) an ISP updating DHCP routing tables to enable a customer to interact directly with the ISP for services thereby bypassing standard Internet DHCP protocol. Applicants submit that none of the foregoing elements and steps are disclosed or suggested in Beser-Sistanizadeh-Ditmer, alone or in combination. Without such teachings in the cited references, there is no basis for a worker skilled in the art to implement Claims 1-20. The rejection of Claims 1-20 under 35 USC 103(a) fails for lack of support in the cited references.

**CONCLUSIONS:**

Having demonstrated that the cited references, alone or in combination, do not disclose the elements and steps of Claims 1-20 and the rejection under 35 USC 103(a) fails for lack of support, applicants request entry of the amendment, allowance of the claims and passage to issue of the case, or in the alternative, entry of the response for appeal purposes.

**AUTHORIZATION:**

The Commissioner is hereby authorized to charge any additional fees which may be required for the timely consideration of this amendment under 37 C.F.R. §§ 1.16 and 1.17, or credit any overpayment to Deposit Account No. 13-4503, Order No. 1963-7353 (BC999046).

Respectfully submitted,  
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